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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,629	12/03/2001	John A. Morrison	10017862-1	7445

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EXAMINER	
YIGDALL, MICHAEL J	
ART UNIT	**PAPER NUMBER**
2192	

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/998,629	MORRISON ET AL.	
	Examiner	Art Unit	
	Michael J. Yigdall	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 December 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *21-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's amendment and response filed on December 23, 2004 has been fully considered. Claims 21-23 are now pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 21-23 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 23-28 of copending Application No. 09/998,630. Although the conflicting claims are not identical, they are not patentably distinct from each other because both recite analogous high-availability cellular computer systems capable of automatically updating firmware.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

5. It is noted that Applicant intends to file a terminal disclaimer in the event that Application No. 09/998,630 issues as a patent with an earlier expiration date than any patent issuing in the present application (Applicant's remarks, page 4, second paragraph).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,834,340 to Lee et al. (art made of record, "Lee") in view of U.S. Pub. No. 2002/0091807 to Goodman (art of record, "Goodman") in view of U.S. Pat. No. 6,665,813 to Forsman et al. (art made of record, "Forsman").

With respect to claim 21 (new), Lee discloses a high-availability cellular computer system capable of automatically updating firmware in cells of the system (see, for example, the abstract), the system comprising:

(a) a high speed interconnect (see, for example, system bus 106 in FIG. 1);

(b) a first cell and a second cell, each cell comprising at least one processor coupled to at least one random-access memory subsystem, at least one nonvolatile memory system, and a high-speed interconnect interface (see, for example, FIG. 2 and column 5, lines 32-39, which shows a plurality of partitions or cells each comprising a processor, a random-access memory unit, nonvolatile memory storage, and an I/O interface);

(c) wherein the high-speed interconnect interface of the first cell and the second cell is coupled to the high speed interconnect (see, for example, FIG. 1, which shows that each processor is coupled to the high-speed interconnect).

Although Lee discloses testing the cells to detect errors (see, for example, column 4, lines 41-53), and further discloses updating the firmware by one of the cells (see, for example, FIG. 4 and column 6, lines 32-65), Lee does not expressly disclose the limitations:

(d) wherein the nonvolatile memory subsystem of the first cell has recorded therein corrupt firmware, and the nonvolatile memory subsystem of the second cell has recorded therein valid firmware; and

(e) wherein the first cell contains machine readable code for recognizing that the firmware in the nonvolatile memory system of the first cell is corrupt and, upon recognizing that the firmware of the first cell is corrupt, for updating the nonvolatile memory system of the first cell with firmware copied from a cell having valid firmware; and

(f) wherein the second cell contains machine readable code for recognizing that the firmware in the nonvolatile memory system of the second cell is valid, and for transmitting the firmware in the nonvolatile memory system of the second cell to the first cell.

However, Goodman discloses updating the firmware in nodes or cells of a system (see, for example, the abstract), and discloses a first cell having outdated firmware (see, for example, paragraph 0021, lines 1-9 and 16-18) and a second cell having updated, valid firmware (see, for example, paragraph 0021, lines 10-15), as in part (d) above.

Goodman further discloses that the first cell has code to determine that its firmware is outdated (see, for example, paragraph 0025, lines 2-13) and to update the first cell with firmware copied from a cell having valid firmware (see, for example, paragraph 0027, lines 10-13), as in part (e) above.

Goodman further discloses that the second cell has code to determine that its firmware is valid (see, for example, paragraph 0023, lines 7-14) and to transmit its firmware to the first cell (see, for example, paragraph 0027, lines 6-8), as in part (f) above.

Goodman discloses that updating the firmware in the above manner helps to ensure that each node or cell in the system has the same version of the firmware, so as to prevent any incompatibility problems caused by having different firmware levels in different cells (see, for example, paragraph 0010, lines 8-11).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to supplement the system of Lee with the firmware updating features taught by Goodman, so as to help ensure that each partition or cell has the same version of firmware and prevent incompatibility problems.

Lee in view of Goodman does not expressly disclose the limitation wherein the outdated firmware is corrupt firmware.

However, Forsman discloses updating the firmware in a system and determining whether the firmware is corrupt (see, for example, column 1, lines 50-55). Forsman discloses recovering the firmware if the update is corrupted (see, for example, column 6, lines 16-28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to supplement the system of Lee in view of Goodman so as to determine whether the firmware is corrupt, such as taught by Forsman, so that the firmware can be updated and recovered if needed.

With respect to claim 22 (new), the rejection of claim 21 is incorporated, and Lee further discloses:

(a) a manageability system interconnect (see, for example, JTAG/I^2C buses 134 in FIG. 1);

(b) wherein the first cell and second cell further comprise a management processor (see, for example, service processor 135 in FIG. 1).

Although Lee discloses using the manageability system interconnect to test the cells and detect errors (see, for example, column 4, lines 41-53), and further discloses updating the firmware based on a flash request and an acknowledgement from one of the cells (see, for example, FIG. 4 and column 6, lines 32-65), Lee does not expressly disclose the limitation:

(c) wherein the management processor of the second cell contains machine readable code to receive an update message via the manageability system interconnect and, in response thereto, to transmit an acknowledgement view the manageability system interconnect, to enable the high

speed interconnect; and to transmit the firmware in the nonvolatile memory system of the second cell to the first cell via the high speed interconnect.

However, Goodman further discloses that the second cell has code to receive a request for valid firmware and to transmit an acknowledgement in response (see, for example, paragraph 0023, lines 7-14), to enable the interconnect (see, for example, paragraph 0017, lines 14-21), and to transmit the firmware to the first cell (see, for example, paragraph 0027, lines 6-8), as in part (c) above.

With respect to claim 23 (new), the rejection of claim 21 is incorporated, and Lee further discloses:

(a) a manageability system interconnect (see, for example, JTAG/I^2C buses 134 in FIG. 1);

(b) wherein the first cell and second cell further comprise a management processor (see, for example, service processor 135 in FIG. 1).

Although Lee discloses using the manageability system interconnect to test the cells and detect errors (see, for example, column 4, lines 41-53), and further discloses updating the firmware based on a flash request and an acknowledgement from one of the cells (see, for example, FIG. 4 and column 6, lines 32-65), Lee does not expressly disclose the limitation:

(c) wherein the management processor of the second cell contains machine readable code to receive an update message via the manageability system interconnect and, in response thereto, to transmit an acknowledgement view the manageability system interconnect, to enable the high speed interconnect; and to transmit the firmware in the nonvolatile memory system of the second cell to the first cell via the manageability system interconnect.

However, Goodman further discloses that the second cell has code to receive a request for valid firmware and to transmit an acknowledgement in response (see, for example, paragraph 0023, lines 7-14), to enable the interconnect (see, for example, paragraph 0017, lines 14-21), and to transmit the firmware to the first cell (see, for example, paragraph 0027, lines 6-8), as in part (c) above.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. U.S. Pat. No. 5,704,031 to Mikami et al. discloses a method of performing self-diagnosing hardware, software and firmware at a client node in a client/server system.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Yigdall whose telephone number is (571) 272-3707. The examiner can normally be reached on Monday through Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MY

Michael J. Yigdall
Examiner
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TUAN DAM
SUPERVISORY PATENT EXAMINER